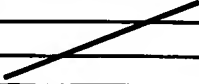



4/1/04

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Substitute for form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(use as many sheets as necessary)</i>		Complete if Known	
		Application Number	
		Filing Date	Herewith
		First Named Inventor	David W. Farchmin
		Group Art Unit	2125
		Examiner Name	Gandhi
Sheet 1	of 4	Attorney Docket Number	110003.00027.03AB047

U.S. PATENT DOCUMENTS						
Examiner Initials ¹	Cite No. ¹	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code ² (if known)			
JG	1	4,728,959		Maloney et al	Mar. 1, 1988	/
	2	5,119,104		Heller	Jun. 2, 1992	
	3	6,026,304		Hilsenrath et al	Feb. 15, 2000	
	4	20010003443		Velazquez et al	Jun. 14, 2001	
	5	6,252,867		Pfeil et al	Jun. 26, 2001	
	6	20010021182		Wakutsu	Sep. 13, 2001	
	7	6,347,229		Zelmanovich et al	Feb. 12, 2002	
	8	20020051430		Kasami et al	May 2, 2002	
	9	6,407,719		Ohira et al	Jun. 18, 2002	
	10	5,991,284		Willenegger et al	Nov. 23, 1999	
	11	20020102995		Zelmanovich et al	Aug. 1, 2002	
	12	20020118655		Harrington et al	Aug. 29, 2002	
	13	6,437,740		De Champlain et al	Aug. 20, 2002	
	14	5,642,353		Roy, III et al	Jun. 24, 1997	
	15	4,700,197		Milne	Oct. 13, 1987	
	16	6,167,464		Kretschmann	12-26-00	
	17	5,907,491		Canada et al	05-25-99	

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		Office ³	Number ⁴	Kind Code ⁵ (if known)				
JG	1		WO 01/22118 A2		James G. Seal	29.Mar.2001		
	2		WO 99/39219		Belcher, et al	5.Aug.1999		
	3		WO 01/82032 A2		Baker, Richard A.	01.11.2001		

Examiner Signature	/Jayprakash Gandhi/	Date Considered	04/27/2006
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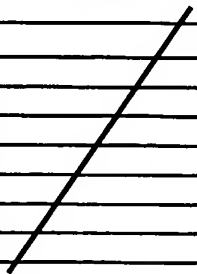


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	Application Number		
	Filing Date	Herewith	
	First Named Inventor	David W. Farchmin	
	Group Art Unit	2125	
	Examiner Name	Gandhi	
Sheet 2	of 3	Attorney Docket Number	110003.00027.03AB049

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	19	6,060,993		Cohen	05-09-00	
	20	5,960,085		de la Huerqa	09-28-99	
	21	4,612,620		Davis, et al.	09-16-86	
	22	6,236,335		Goodwin III	05-22-01	
	23	6,011,487		Plocher	01-04-00	
	24	2001/0024174		Turner	09-27-01	
	25	5,751,221		Stanfield, et al.	05-12-98	
	26	5,627,549		Park	05-06-97	
	27	5,649,300		Snyder et al	07-15-97	
	28	6,362,783		Sugiura et al	03-26-02	
	29	5,287,266		Malec et al	02-15-94	
	30	6,359,711		Cole et al	03-19-02	
	31	6,211,799		Post et al	Apr. 3, 2001	
	32	6,282,455		Engdahl	Aug. 28, 2001	
	33	6,446,004		Cao et al	Sep. 3, 2002	
	34	20020125886		Bates et al	Sep. 12, 2002	
↓	35	5,544,321		Theimer et al	Aug. 6, 1996	
	36	2003/0011467		Suomela	Jan. 16, 2003	

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		Office ³	Number ⁴	Kind Code ⁵ (if known)				
JG	4		0 992 921 A2		Lucent Technologies Inc	12.04.2000		
	5		WO 00/50919		Microsoft Corporation	31.08.2000		
	6		WO 02/054813 A1		EKA-Hau Oy	11.07.2002		
	7		WO 02/43428 A1		Tele-Com Italia Lab s.p.	30.05.2002		
	8		WO 01/16607 A2		Cordless Antistatic Resi	08.03.2001		
	9		WO 02/12992 A2		IBM United Kingdom Lir	14.02.2002		
	10		GB 2 365 662		International Business M	20.02.2002		
	11		WO 02/056274 A1		Digital Angel Corporatio	18.07.2002		
	12		WO 00/17737		Kemink et al	30.03.00		
	13		WO 01/82032 A2		Baker, Richard A.	01.11.2001		

Examiner Signature	/Jayprakash Gandhi/	Date Considered	04/27/2006
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		Application Number	
		Filing Date	Herewith
		First Named Inventor	David W. Farchmin
		Group Art Unit	2125
		Examiner Name	Gandhi
Sheet	3	of	3
		Attorney Docket Number	110003.00027.03AB049

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
JG	1	A Statistical Modeling Approach to Location Estimation; IEEE Transactions on Mobile Computing; Vol. 1, No. 1, Jan-Mar 2002; pg. 59-69; Roos, et al	
	2	A Probabilistic Approach to WLAN User Location Estimation; International Journal of Wireless Information Networks, Vol. 9, No. 3, pg. 155-164; Roos, et al.	
	3	A Statistical Modeling Approach To Location Estimation; Master's Thesis, Univ. of Helsinki, Department of Computer Science, May 5, 2001, Teemu Tonteri	
	4	An Indoors Wireless Positioning System Based On Wireless Local Area Network Infrastructure; SatNav 2003, 6th Intl. Symposium on Satellite Navation; Melbourne	
↓		Australia; Wang et al; 13 pages; July 22-25, 2003	

Examiner Signature	/Jayprakash Gandhi/	Date Considered	04/27/2006
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Complete if Known

Application Number	
Filing Date	Herewith
First Named Inventor	David W. Farchmin
Art Unit	2125
Examiner Name	Gandhi
Attorney Docket Number	110003.00027.03AB049

Sheet 4 of 4

U. S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ² (if known)			
JG	373	US- 6.167.464	12-26-00	Kretschmann	
	38	US- 5.907.491	05-25-99	Canada et al	
	39	US- 2002/0030094 A1	03-14-02	Curry et al	
	40	US- 2002/0167417 A1	11-14-02	Wells, II et al	
	41	US- 2002/0058499 A1	05-16-02	Ortiz	
	42	US- 5.202.929	04-13-93	Lemelson	
	43	US- 5.548.660	08-20-96	Lemelson	
	44	US- 2001/0018349	08-30-01	Kinnunen et al	
	45	US- 5.485.634	01-16-96	Weiser et al	
	46	US- 5.910.799	06-08-99	Carpenter et al	
	47	US- 5.552.806	09-03-96	Lenchik	
	48	US- 2002/0161633 A1	10-31-02	Jacob et al	
	49	US- 5.555.376	09-10-96	Theimer et al	
	50	US- 5.642.303	06-24-97	Small et al	
	51	US- 2002/0007407 A1	01-17-02	Klein	
	52	US- 4.598.275	07-01-86	Ross et al	
	53	US- 2002/0123325 A1	09-05-02	Cooper	
	54	US- 6.496.775 B2	12-17-02	McDonald, Jr. et al	
	55	US- 6.611.755 B1	08-26-03	Coffee et al	

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Examiner Initials*	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Country Code ³ Number ⁴ Kind Code ⁵ (if known)			
JG	14	WO 02/05107 A1	17.01.2002	Swales, Andrew	
	15	EP 0 801 342 B1	08.01.2003	Carpenter, et al	
	16	EP 0 626 635 A2	30.11.94	Palrang et al	
	17	WO 02/13557 A1	14.02.2002	Keller, et al	
	18	WO 01/41546 A2	14.06.2001	Brumitt et al	

Examiner Signature	/Jayprakash Gandhi/	Date Considered	04/27/2006
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet 1 of 4

Complete if Known

Application Number	10/816,367
Filing Date	04-01-2004
First Named Inventor	David W. Farchmin
Group Art Unit	2125
Examiner Name	Gandhi
Attorney Docket Number	110003.00027.03AB 049

U.S. PATENT DOCUMENTS

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JG	1	5,835,061		Stewart	11-10-98	
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	3	5,960,085		de la Hueraga	09-28-99	
	4	4,612,620		Davis, et al.	09-16-86	
	5	6,236,335		Goodwin III	05-22-01	
	6	6,011,487		Plocher	01-04-00	
	7	2001/0024174		Turner	09-27-01	
	8	5,751,221		Stanfield, et al.	05-12-98	
	9	5,627,549		Park	05-06-97	
	10	5,649,300		Snyder et al	07-15-97	
	11	6,362,783		Sugiura et al	03-26-02	
	12	5,287,266		Malec et al	02-15-94	
	13	6,359,711		Cole et al	03-19-02	
	14	6,211,799		Post et al	Apr. 3, 2001	
	15	6,282,455		Engdahl	Aug. 28, 2001	
	16	6,446,004		Cao et al	Sep. 3, 2002	
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	18	5,544,321		Theimer et al	Aug. 6, 1996	
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	4		WO 02/43428 A1		Tele-Com Italia Lab s.p.	30.05.2002		
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	6		WO 02/12992 A2		IBM United Kingdom Lir	14.02.2002		
	7		GB 2 365 662		International Business M	20.02.2002		
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	9		WO 00/17737		Kemink et al	30.03.00		
	10		WO 01/82032 A2		Baker, Richard A.	01.11.2001		

Examiner
Signature

/Jayprakash Gandhi/

Date
Considered

04/27/2006

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet 2 of 4

Complete if Known

Application Number	10/816,367
Filing Date	04-01-2004
First Named Inventor	David W. Farchmin
Art Unit	2125
Examiner Name	Gandhi
Attorney Docket Number	110003.00027.03AB049

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Sheet 3 of 4		Application Number 10/816,367	Filing Date 04-10-2004
		First Named Inventor David W. Farchmin	Group Art Unit 2125
		Examiner Name Gandhi	Attorney Docket Number 110003.00027.03AB049

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	44	20010021182		Wakutsu	Sep. 13, 2001	
	45	6,347,229		Zelmanovich et al	Feb. 12, 2002	
	46	20020051430		Kasami et al	May 2, 2002	
	47	6,407,719		Ohira et al	Jun. 18, 2002	
	48	5,991,284		Willenegger et al	Nov. 23, 1999	
	49	20020102995		Zelmanovich et al	Aug. 1, 2002	
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Examiner Initials ¹	Cite No. ¹	Foreign Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
		Office ³	Number ⁴				
JG	16		WO 01/22118 A2	James G. Seal	29.Mar.2001	/	
JG	17		WO 99/39219	Belcher, et al	5.Aug.1999		
JG	18		WO 01/82032 A2	Baker, Richard A.	01.11.2001		

Examiner Signature	/Jayprakash Gandhi/	Date Considered	04/27/2006
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¹ Unique citation designation number. ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

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Substitute for form 1449B/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(use as many sheets as necessary)</i>		Complete If Known	
	Application Number	10/816,367	
	Filing Date	04-01-2004	
	First Named Inventor	David W. Farchmin	
	Group Art Unit	2125	
	Examiner Name	Gandhi	
Sheet	4	of	4
	Attorney Docket Number	110003.00027.03AB 049	

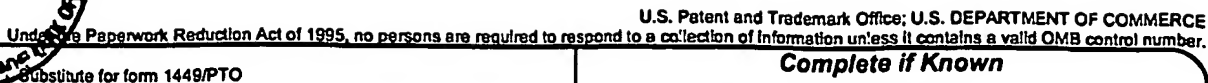
OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS			
Examiner Initials ¹	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
JG	✓ 1	A Statistical Modeling Approach to Location Estimation; IEEE Transactions on Mobile Computing; Vol. 1, No. 1, Jan-Mar 2002; pg. 59-69; Roos, et al	
	✓ 2	A Probabilistic Approach to WLAN User Location Estimation; International Journal of Wireless Information Networks, Vol. 9, No. 3, pg. 155-164; Roos, et al.	
	✓ 3	A Statistical Modeling Approach To Location Estimation; Master's Thesis, Univ. of Helsinki, Department of Computer Science, May 5, 2001, Teemu Tonteri	
	✓ 4	An Indoors Wireless Positioning System Based On Wireless Local Area Network Infrastructure (13 pgs), SatNav 2003, Melbourne, Australia 7/22-25/03, Wang et al	

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(Use as many sheets as necessary)

Sheet	1
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of 1

Complete if Known	
Application Number	10/816,367
Filing Date	April 1, 2004
First Named Inventor	David W. Farchmin
Art Unit	2125
Examiner Name	Gandhi
Attorney Docket Number	110003.00027.03AB049

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FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear	T ⁶
		Country Code ³ Number ⁴ Kind Code ⁵ (# known)				
JG	1	DE 39 32 375 A1	23.9.88	Ruhrkohle AG		
V	2	EP 0 992 921 A2	12.04.2000	Lucent Technologies		
	3	WO 02/30053 A1	11.04.2002	Lesswire AG		

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet	1	of	1
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Complete if Known

Application Number	10/816,367
Filing Date	04-01-04
First Named Inventor	David W. Farchmin
Group Art Unit	2125
Examiner Name	Gandhi
Attorney Docket Number	110003.00027

U.S. PATENT DOCUMENTS

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FOREIGN PATENT DOCUMENTS

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Signature**

/Jayprakash Gandhi/

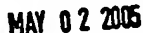
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Application Number	10/816,367
Filing Date	04-01-04
First Named Inventor	David W. Farchmin
Art Unit	2125
Examiner Name	Gandhi
Attorney Docket Number	110003.00027

Sheet	1	of	1
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U. S. PATENT DOCUMENTS

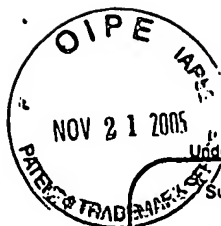
FOREIGN PATENT DOCUMENTS

Examiner Signature	/Jayprakash Gandhi/	Date Considered	04/27/2006
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**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

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Sheet 1 of 1

Complete if Known

Application Number	10/816,367
Filing Date	04-01-2004
First Named Inventor	David W. Farchmin
Art Unit	2125
Examiner Name	Gandhi
Attorney Docket Number	110003.00027

U. S. PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ² (if known)			
JG ↓ ↓ ↓	1	US-2002/0131446	09-19-02	Metcalf, III	
	2	US-5,978,753	11-02-99	Eldson	
	3	US-5,598,572	01-28-97	Tanikoshi et al	
	4	US-5,519,878	05-21-96	Dolin Jr.	
	5	US-6,574,549	06-2003	Cato et al	
	6	US-6,813,608	11-2004	Baranowski, Robert	
	7	US-2002/0183979	12-2002	Wildman, Timothy	
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		Country Code ³ Number ⁴ Kind Code ⁵ (if known)				
JG ↓ ↓ ↓	1	WO 02/05107 A1	17.Jan.2002	Swales, Andrew		
	2	EP 1 265 118 A1	05.Jun.2001	Wimmer, Wolfgang		
	3	EP 1 233 315 A1	19.Feb.2001	Wimmer, Wolfgang		
	4	EP 0 472 874 A1	15.Jul.1991	Mathias, Thomas et al		
	5	WO 02/30053	11.Apr.2002	Lessuire		

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Signature

/Jayprakash Gandhi/

Date
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04/27/2006

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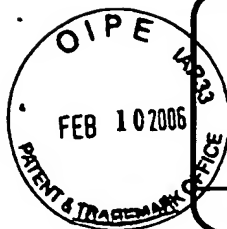
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet 1 of 1

Complete if Known

Application Number	10/816,367
Filing Date	April 1, 2004
First Named Inventor	David W. Farchmin
Group Art Unit	2125
Examiner Name	Jayprakash N. Gandhi
Attorney Docket Number	110003.00027 (03AB049)

U.S. PATENT DOCUMENTS

Examiner Initials ¹	Cite No. ¹	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code ² (if known)			
JG		3,812,947		Nygaard	05/28/1974	
		4,742,470		Juengel	05/03/1988	
		5,119,401		Tsujimoto	06/02/1992	
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		US2003/0191767		Kabala	10/09/2003	
		JS2005/0021158		De Meyer, et al.	01/27/2005	

FOREIGN PATENT DOCUMENTS

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		Office ³	Number ⁴	Kind Code ⁵ (if known)				
JG		WO	95/14938		Murdoch, et al.	06/01/1995		
		WO	99/28797		Horn, et al.	06/10/1999		
		WO	01/388797		Hofer, et al.	05/31/2001		
		DE	3832375 A1		Ormanns, et al.	03/29/1990		
		DE	20010529 U1		Aesculap AG & Co.	11/09/2000		
		DE	19955646 A1		Hofer, et al.	06/13/2001		
		GB	2 274 521		Mori, et al.	07/27/1994		

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/Jayprakash Gandhi/

Date
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Application Number	10/816,367
Filing Date	April 1, 2004
First Named Inventor	David W. Farchmin
Group Art Unit	2125
Examiner Name	Jayprakash N. Ganhi
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